



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,393	06/30/2003	Kevin Lo	200311912-1	1507
22879 7590 07/02/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER HSIEH, SHIH WEN				
ART UNIT 2861		PAPER NUMBER		
NOTIFICATION DATE 07/02/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM

mkraft@hp.com

ipa.mail@hp.com

Office Action Summary

Application No.

10/611,393

Applicant(s)

LO ET AL.

Examiner

shih-wen hsieh

Art Unit

2861

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-41, 43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-41 and 43 is/are allowed.
- 6) ☒ Claim(s) 1, 3 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

Terminal Disclaimer

1. The terminal disclaimer filed on May 14, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,860,583 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Alonso et al. (US Pat. No. 4,024,548).

In regard to:

Claim 1:

Alonso et al. teach:

An ink over-spray containment apparatus, comprising:

a first member having a first fluidic transport coefficient and a first ink affinity;

a second member coupled to said first member, said second member having a second fluidic transport coefficient lesser than said first fluidic transport coefficient and a second ink affinity greater than said first ink affinity, refer to col. 2, lines 34-41 and col. 3, lines 6-24;

wherein said first member comprises porous plastic, refer to col. 3, line 6-7.

Claim 3:

Alonso et al. further teach:

wherein said second member comprises needle felt, refer to col. 3, lines 25-32.

Claim 44:

wherein a platen (17, fig. 1) containing said first and second members is further configured to channel ink from flank portions of said first member to said second member, refer to col. 2, lines 34-47. Note: since ink is transferred from the first absorber which is closer to the printing medium (10) to the second absorber, some of the absorbed ink by the first absorber is certainly being transferred around the flange portions of the support. Wherein said flange portions of the support is the flank portions of the absorbers, since the flanges are the boundaries of the absorbers.

Allowable Subject Matter

4. Claims 4-41 and 43 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

In regard to:

Claims 29-31:

The primary reason for the allowance of claims 29-31 is the inclusion of the limitation of disposing said first and second members within said platen to contain a seepage of said ink from said first and second members. It is this limitation found in each of the claims as they are claimed in the combination, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

Claim 36:

The primary reason for the allowance of claim 36 is the inclusion of the limitation of providing a platen that supports print media moving through a printing device, contains said first and second members and contains any ink that may escape from either the first or second member. It is this limitation found in this claim as it is claimed in the combination, which has not been found, taught or suggested by the prior art of record that makes this claim allowable over the prior art.

Claims 41 and 43:

The primary reason for the allowance of claims 41 and 43 is the inclusion of the limitation of a compressed member coupled to said ink transport means or said ink containment means for actively applying a force to said ink transport means and said ink containment means to increase a contact surface area between said ink transport

means and said ink containment means. It is this limitation found in each of the claims as they are claimed in the combination, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Response to Arguments

7. Applicant's arguments filed on March 27, 2008 have been fully considered but they are not persuasive.

Regarding to claim 1:

Applicants argued in their page 13 of the Remarks that: "Thus, Alonso addresses the rate of fluid transfer between two materials have differently sized pores and consequently different porosities. Alonso does not teach, suggest or even mention the concept of "ink affinity." As expressly recited in claim 1, the ink affinity of the second member is higher than that of the first member, even though the second member has a lesser fluidic transport coefficient than the first member, i.e., "said second member having a second fluidic transport coefficient lesser than said first fluidic transport coefficient and a second ink affinity greater than said first ink affinity." Alonso utterly fails to teach, suggest or even mention the relative ink affinity feature of the first and second members in claim 1".

To these issues above, Examiner respectively disagrees. Because:

1. The main concept of claim 1 is using two members to transfer liquid (such as ink) from the first member to the second member.
2. Based on the concept in item 1 above, there must be a liquid heads difference or pressure gradient between these two members so as to cause the liquid to flow from a member having a higher liquid head than that of the second member.
3. After Examiner posted out the two points above, then turning to claim 1 now. Applicants emphasized on two terms: (1) fluidic transport coefficient, and (2) ink affinity. As Applicants explained in their Remarks, page 12 that: "Applicant's specification expressly states that "fluidic transport coefficient shall refer broadly to a material's ability to move a fluid. In addition, ink affinity shall refer broadly to a material's tendency to adsorb ink." (Applicant's specification, paragraph 0015)". Based on Applicants'

explanations above, then Examiner contends that: the **capillary forces** of the pores shall correspond to the **fluidic transport coefficient**. Based on this, then looking into Alonso et al.'s teaching in their col. 3, lines 17-24. In that column and lines, the member having small pores (member 19) will have a larger capillary force than the member having larger pores (member 18) such that the ink absorbed by the member having the larger pores (member 18) will flow from the member 18 (having larger pores) to the member 19 (having small pores) by the capillary forces difference. So it is clearly from the previous discussions that the difference in the capillary forces between these two members is the same as saying: "the first fluidic transport coefficient (corresponding to the member having higher capillary force, or member 19) is larger than the second fluidic transport coefficient (corresponding to the lower capillary force, or member 18). In the current application, Applicants used the terminology of "fluidic transport coefficient", in which, the word "transport" is actually a movement, and the cause of the movement is the difference in capillary forces (see col. 1, lines 41-46).

4. Based on discussions in item 3 above, then the term of "ink affinity" is closely related to "fluidic transport coefficient". Or, these two things are front and back sides of one thing. Because fluid flows from larger pore member (18) to small pore member (19) inherently teaches the ink affinity of the larger pore member (18) is less than that of the small pore member (19). That's why ink absorbed by the member (18) facing print head will flow to the member (19) leaving the member (18) dry (see col. 3, lines 17-24).

5. As a summary to the above discussion, member (18) has capillary force that is smaller than that of the member (19) so that the fluid will flow from member (18) to member

(19), which is the same as saying member (18) has a “fluidic transport coefficient” that is larger than that of the member (19). The fluid can only flow from a member having larger fluidic transport coefficient to the member having the smaller fluidic transport coefficient. Using Alonso et al.’s capillary forces philosophy, it is the difference in capillary forces, that the fluid can be seen as **draw or suck** from the member having larger fluidic transport coefficient (18) to the member having smaller fluidic transport coefficient. The conclusion is: terminologies are different, the results being produced (transferring of liquid from one member to another member coupled together) are the same. So claim 1 remains as rejected.

Regarding to claim 3:

1. See col. 2, line 67 to col. 3, line 5.

2. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to include a needle felt material as the material for said first member, since it has been held to be within the general skill of a worker in the art to select a know material, such as the above mentioned needle felt, on the basis of its suitability for the intended use, refer to MPEP 2144.07.

Regarding to claim 44:

Although “platen” has been defined as a device that support[s] the print medium (120) in a print zone (not shown) during a printing operation (see Applicants' argument in page 16 of the Remarks), please be advised that the features in the specification to which Applicants refer are not recited in the rejected claim, claim 44. although the claim (claim 44) is interpreted in light of the specification, limitation (the platen is used to

support the print medium) from the specification is not read into the claim, claim 44, see In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to shih-wen hsieh whose telephone number is 571-272-2256. The examiner can normally be reached on 9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Luu can be reached on 571-272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SWH/

June 25, 2008

